DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

195
Revision 1
Jacobs
L-6 Series
Military R-915-3, -5, -7

January 2, 2002

TYPE CERTIFICATE DATA SHEET NO. 195

Engine models described herein conforming with this data sheet (which is part of Type Certificate No. 195) and other approved data on file with the Federal Aviation Administration meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets provided they are installed, operated, and maintained as prescribed by the approved manufacturer's manuals and other approved instructions.

Type Certificate Holder	Air Repair, Inc. 920 Airport Service Road Cleveland, Mississippi 38732
Type Certificate Holder Record:	Air Repair, Inc. assumed ownership of this type certificate from Jacobs Service Company, 4305 Saturn Way, Chandler, Arizona 85334 on January 2, 2002.

Model	L-6	L-6M, -6MA	L-6MB, -6MBA
Type	7RA	- - - -	- - - -
Rating:			
Maximum continuous,			
hp, rpm, in. Hg., at:			
Rate pressure altitude (ft.)	300-2100-23.5-3700	- - - -	- - - -
Sea level pressure altitude	300-2100-24.5-S.L.	- - - -	- - - -
Take-off (5 minutes),			
hp, rpm, in. HG	330-2200-26.0	- - - -	- - - -
Fuel (minimum octane			
aviation gasoline)	80	- - - -	- - - -
Bore and stroke, in.	5.5 x 5.5	- - - -	- - - -
Displacement, cu. in.	914	- - - -	- - - -
Compression ratio	6: 1	- - - -	- - - -
Weight (dry), lbs.	555	557, 560	570, 573
Propeller shaft, SAE No.	20	- - - -	- - - -
Carburetion	Stromberg NA-R7A	- - - -	- - - -
	carburetor with 2-1/4 in.		
	venturi		
Ignition, dual	Bosch AFV or Scintilla	Scintilla MN7-DF5 or	Combination Scintilla
	WL7A battery units	VMN-7DF5 magnetos	MN7-DF5 or VMN7-DF5
			magnetos and Scintilla
			WL7A or Bosch AFV
			battery ignition unit
Ignition timing, degrees BTC	30	- - - -	- - - -
Spark plugs	BG-4B2 (S), 417S	- - - -	- - - -
	SS454, SS485, Bendix		
	9BS2, 437J, Champion		
	C-27S, M3-1S, RC-26S,		
	C-27, C27S		
NOTES	1,3,4,6	1,2,3,4,6	1,2,3,4,5,6

Certification basis — Type Certificate No. 195

Production basis — None. The manufacturer no longer holds a production certificate for engine under this type certificate; therefore, each engine produces subsequent to February 20, 1956, is subject to a detailed inspection for workmanship and conformity with the approved data by an FAA representative. In addition, the engine must have a satisfactory run-in including at least five hours at rated power and speed. Upon satisfactory completion of the above, the representative will tag the engine with Tag Form ACA-186.

NOTE 1. Maximum permissible cylinder head, barrel, and oil inlet temperature, 550° F, 325°F, and 200°F, respectively

NOTE 2 Models L-6MA otherwise similar to models L-6M and L-6MN, respectively incorporate autogyro rotor drive gearing.

NOTE 3. Eligible with aluminum rear, main, and front crankcases, and male bearing plate replacing the magnesium parts with a possible maximum weight increase of 26 lbs. Engine dry weights listed above include starter driver, generator drive, one pump drive, and the following:

Accessory drive unit – 1 pump drive (L-6MB only)	3 lbs.
Radio shielded ignition (standard equipment for later engines)	10 lbs.
Automatic valve gear lubrication (standard equipment for engines above No. 2691)	7 lbs.
Propeller oil transfer sleeve (standard equipment for engines above No. 2691)	3 lbs.
Generator and control – 15 amp. (L-6 and L-6, and L-6MB only)	15 lbs.

NOTE 4. The following accessories are eligible for use on the specified engine models at the indicated additional or substitute weights:

		Engine Models		
Optional Accessories	Weight (lbs.)	L-6	L-6M	L-6MN
*Governor – Hamilton Standard hydraulic propeller governor Model 1A4	5	Yes	- - - -	- - - -
Hydraulic pump – Pesco Model 320-F	3	Yes	- - - -	- - - -
Fuel pump:				
Pesco Model M-400A, Romec Model F-4RB,				
Pesco Model R-400-BLY, Romec Model RD-4140 (4 stud pad), or Pesco Model R-400-BLH (3 stud pad)	2	Yes	- - - -	- - - -
Vacuum pump:				
Pesco type B-2A, Model 194-C or Romec type B-2A, Model RD2112	4	Yes	- - - -	- - - -
Generator:				
Eclipse Type D, 25 amp., and control	26	Yes	- - - -	- - - -
Eclipse Model G-2, 15 amp., and control, or				
EclipseType LV-180, 15 amp, and control	17	Yes	- - - -	- - - -
Leece-Neville (25 amp., 24 volt, and control	27	Yes	- - - -	- - - -
Starter:				
Eclipse series E-80 Type 397	19	Yes	- - - -	- - - -
Eclipse Type F-141	25	Yes	- - - -	- - - -
Accessory drive unit including:				
3 pump drives	6	Yes	No	Yes
2 pump drives	5	Yes	No	Yes
1 pump drive	3	Yes	- - - -	Std.
Propeller hub (fixed pitch)	15	Yes	- - - -	- - - -

*All models are eligible for optional use of 2-position hydraulically controllable propeller when the control valve is used in lieu of the constant speed governor.

NOTE 5. Military R-915-3 engines are similar to Model L-6MBA. Military R-915-5, and -7 engines are similar to Model L-6MN. All military engines should be inspected to installation in civil aircraft to ascertain that piston rings, part numbers 30292, 30293, and 30294 are incorporated. The piston ring part numbers are located on the upper side of ring. Jacobs Service Bulletin No. 31 discusses the installation of these improved rings together with other engine refinements. When used in certificated aircraft, the designation plate of military engines should be stamped with the corresponding certificated model designation and the T.C. Number. If there is no room for this information on the existing plate, a new one may be secured from the engine manufacturer in exchange of the old one.

NOTE 6. The following accessory drive provisions are available:

			Maximum Torque Inch-Pounds		
Drive	Direction of Rotation	Drive Ratio	Continuous	Static	Maximum Overhang Moment Inch-Pounds
Starter	CCL	1.5: 1	- - - -	5500	100
Generator	CCL	1.4: 1	50	300	110
Fuel pump (rear crankshaft)	CL	1: 1	20	150	- - - -
Tachometer	CCL	.5: 1	- - - -	- - - -	- - - -
*Vacuum pump	CCL	1: 1 or .875: 1	30	200	- - - -
*Propeller governor	CCL	1: 1	30	200	- - - -
*Hydraulic pump	CCL	1:1 or .875: 1	30	200	- - - -
*Fuel pump	CCL	1: 1	30	200	- - - -

All directions of rotation are given facing engine drive flange.
*Accessories marked with an asterisk are mounted on accessory drive unit.
The total continuous torque taken off all the drives on the accessory drive unit should not exceed 70 –inch pounds.
Overhang moment for drive pads not listed is not critical provided accessory weights listed in NOTE 4 are not exceeded.

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